



**DIAMOND VIEW MONITORS**

A TRADE MARK OF MITSUBISHI ELECTRIC AUSTRALIA PTY. LTD.

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**DV19NF**

Colour Monitor

19" (48.3cm) CRT Size,  
18" (45.7cm) Max. Viewable Area

User's Manual



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### ***Fill in here!!***

For the convenience of service, write following related information of your monitor in the space below. The serial number is on the back of the product.

#### **Monitor Information**

Product Name: DV19NF

Serial Number:

Date of Purchase:

#### **Dealer Information**

Dealer:

Telephone Number:

Address:

## **Safety Instructions for Display Monitors**

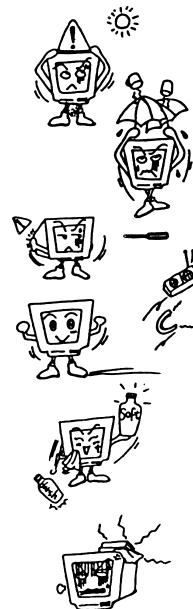
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1. The AC plug isolates this equipment from the AC power supply.
2. Unplug the monitor from the wall outlet before cleaning. Do not use liquid cleaners or aerosol cleaners. Use a damp cloth for cleaning.
3. Slots and openings in the cabinet and the back or bottom are provided for ventilation. They must not be blocked or covered. This computer monitor should never be placed near or over a radiator or heat register, or in a built-in installation unless proper ventilation is provided.
4. This monitor must be operated from the type of power indicated on the rating label. If you are not sure of the type of power available, consult your dealer or local power company.
5. This monitor must be operated with a 3-wire grounding-type plug, a plug having a third (grounding) pin. This plug will only fit into a grounding-type power outlet. This is a safety feature. If you are unable to insert the plug into the outlet, contact your electrician to make the necessary outlet changes.
6. Never push objects of any kind, or spill liquid of any kind into the monitor.
7. Do not attempt to service this product yourself, as opening or removing covers may expose you to dangerous voltages or other risks. If any above mentioned misuse or other accident (such as dropping, mis-operation) occurs, contact qualified service personnel for servicing.
8. Use only the proper type of power supply cord set (provided in your monitor's box) for this unit. It should be a detachable type with approved cable and connectors for use in Australia and New Zealand.
9. The power socket outlet shall be near the equipment and shall be easily accessible.

## Maintenance

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- ✗ Do not expose the monitor to direct sunlight or heat.
- ✗ Do not spill liquid onto the monitor.
- ✗ Do not attempt to open the monitor. You may be hurt by electric shock. For service, call your place of purchase. Opening your monitor may also void warranty.
- ✗ Do not use your monitor when magnets or electronic products are operating nearby.
- ✗ Do not use harsh chemicals or strong cleaning solvents to clean the monitor screen. Wipe it with clean, soft clothes applied with mild solution.
- ✗ Do not place anything on your monitor. Bad ventilation may elevate temperature in the monitor



# **Introduction**

## **Unpacking the Package**

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Check following items. If they are missing or damaged, consult your place of purchase immediately.

- ✓ Colour monitor
- ✓ Swivel base
- ✓ User's manual
- ✓ D-Sub signal cable
- ✓ Power cord
- ✓ Mac adapter

Locate the model name and the serial number labeled on the back of your monitor. Write down the related information of your monitor and dealer in the space on page ii for future reference.

## **Features**

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Your DV19NF has the following features:

### **✓ Plug'n Play Compatibility**

With its DDC1™ and DDC2B™, it is compatible with Plug'n Play feature of Microsoft® Windows® 95, Windows® 98 and Windows® 2000

### **✓ Flicker-free Image**

The monitor supports flicker-free rates at resolutions up to 1600 x 1200 pixels at up to 85Hz which is VESA's best recommended refresh rate.

### **✓ Larger Viewable Size**

With its 18"(45.7cm) viewable size, it offers a larger viewable screen area than most other 19" monitors.

✓ **Easy to Use On Screen Display**

The On-Screen Display (OSD) allows you to adjust all settings simply with on-screen menus.

✓ **Power Saving Function**

The power management complies with VESA DPMS standard. When the system is idle (off mode), the monitor automatically cuts its power consumption up to 95%.

✓ **Green Commitment**

No CFCs are used in the manufacturing process of your monitor. It complies with the US government's Energy Star standards and the rigorous standards of the Scandinavian countries.

## **Power Management**

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The power management of this monitor complies with these VESA power saving modes:

Mode	Power Consumption	Horizontal Sync	Vertical Sync	LED
On	Normal	On	On	Green
Stand-by	< 15 W	Off	On	Amber
Suspend	< 15 W	On	Off	Amber
Off	< 5 W	Off	Off	Amber Blinking
Override	Normal	Off	Off	Green

# **Getting Started**

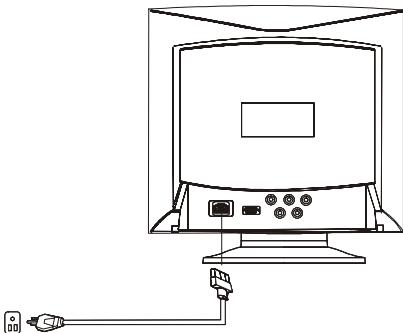
# **2**

## **Installing the Monitor**

This monitor is equipped with an autosensing power supply for voltage ranges 100~240V AC, 50~60Hz.

To install the monitor :

1. Make sure that the system power is turned off.
2. Please refer to the instructions below to connect the signal cable through D-SUB or BNC.
3. Connect the power cord to the monitor and attach it to power source.
4. Turn on the computer and the monitor.

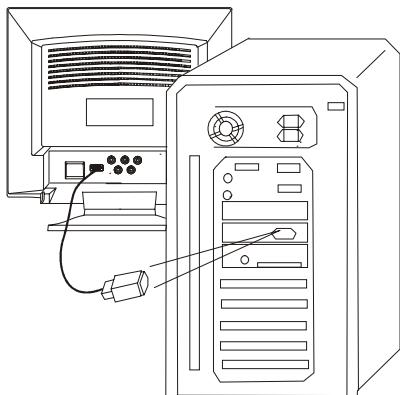


## **Connecting the Signal Cable**

Your DVI 9NF provides D-SUB and BNC signal connectors. The D-SUB or BNC signals can automatically be detected by its microprocessor.

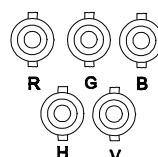
## Connecting through D-SUB signal connector

1. Make sure that the system power is turned off.
2. Connect the computer end of the D-SUB cable to the 15-pin output connector on the video board of your computer.
3. Connect the monitor end of the D-SUB cable to the D-SUB receptacle on the back of the monitor.



## Connecting through BNC signal connector

1. Make sure that the system power is turned off.
2. Connect the computer end of the BNC cable to the output connector on the video board of your computer.
3. Connect the monitor end of the BNC cable to the BNC receptacle on the back of the monitor.

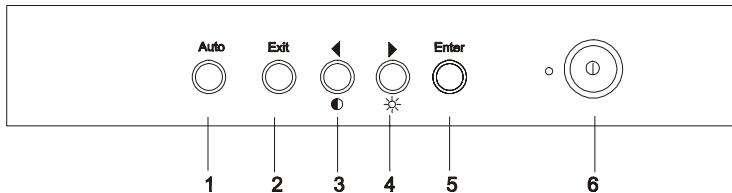


*If you connect the monitor to an older type Apple Macintosh through a D-Sub cable, you need to use the Macintosh adapter provided with the monitor to connect the video signal port of your computer and the monitor signal cable.*

# **Adjusting the Monitor**

# 3

## **A Look at the Control Panel**



## **Adjusting the Monitor**

You can adjust the monitor with the On-Screen Display (OSD) menus. There are 6 keys for user's control. They include **Exit**, **◀**, **▶**, **Enter**, **Auto** and **Power Switch**. The following is the introduction:

### **Panel key introduction**

1. **Auto**: Intelligent key used for auto-calibration of picture size and position.
2. **Exit** key : returns to last page, saves or quits the menu system.
3. **◀ / ⚙** key : adjusts the parameter setting to a lower value or adjusts contrast setting.
4. **▶ / ☀** key : adjusts the parameter setting to a higher value or adjusts brightness setting.
5. **Enter** key : goes into submenus or selects items.
6. **Power Switch**: turns the monitor on or off.

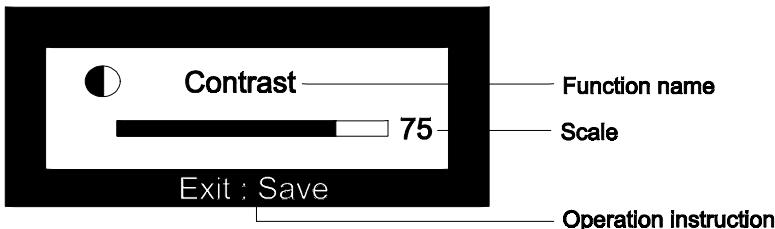
# Selecting function and making adjustments

## 1) Auto (Auto-calibration hot-key)

Pressing Auto, the monitor will automatically adjust the display's size and position to the optimum settings. In some cases , or for some applications , these settings may need to be fine tuned using the Geometry controls.

## 2) Contrast hot-key mode

1. Press ☰ to enter contrast hot-key mode
2. Press ▲ or ▼ to adjust the setting.



## 3) Brightness hot-key mode

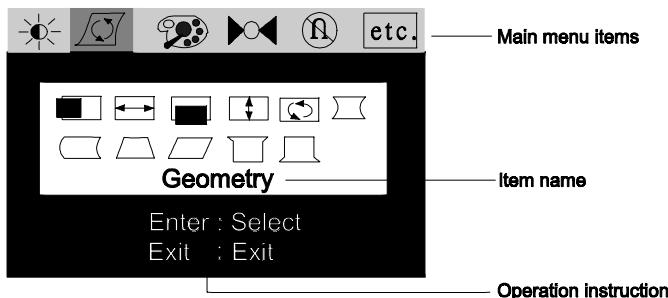
1. Press ☀ to enter brightness hot-key mode.
2. Press ▲ or ▼ to adjust the setting.

## 4) Main menu mode

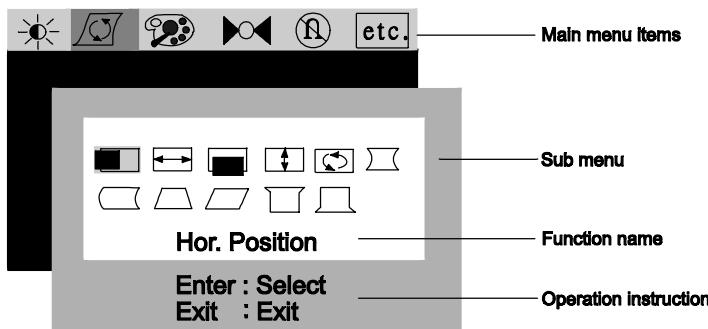
Grouped by functions, the OSD offers 6 major functions in Main Menu for making adjustments: Contrast, Geometry, Colour adjustment, Recall, Degaussing and Miscellaneous. The following describes the contents of each function and how you can make adjustments.

## Make adjustments

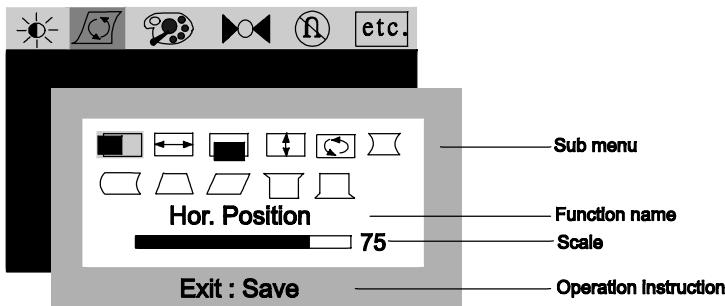
- I. In Main Menu: Press **◀** or **▶** to locate the item you desire to change.



2. Press **Enter** to go into the Sub Menu.



3. Press **◀** or **▶** to locate the function item. Then press **Enter** and **◀** or **▶** to make the adjustment.



4. Press **Exit** to save the setting.  
5. Press Exit to return to main menu.

## Control functions available in main menu

**1.** **Luminance**

**Contrast:** adjusts the difference between the light and dark areas.  
 **Brightness:** adjusts the brightness of the display.

**2.** **Geometry**

- Hor. Position:** adjusts the horizontal position of the display.
- Hor. Size:** adjusts the display width.
- Ver. Position:** adjusts the vertical position of the display.
- Ver. Size:** adjusts the vertical display height.
- Rotation:** corrects screen tilt.
- Pincushion:** corrects curves in the vertical edges of the display.



**Unbalance:** adjusts the pincushion balance if both sides of the display are bowed toward the left or right.



**Trapezoid:** makes the vertical edges of the display parallel.



**Parallelogram:** aligns the top and bottom edges of the image.



**Top corner:** adjusts the edge curvature at the top corners of the image.



**Bottom corner:** adjusts the edge curvature at the bottom corners of the image.

### 3.



## Colour Adjustment

Colour mode	Colour Temperature (Preset Mode)	Colour Temperature (User Mode)
C1 (9300K)	9300K	User Mode 1
C2 (6500K)	6500K	User Mode 2
C3 (5500K)	5500K	User Mode 3
C4 (7100K)	7100K	User Mode 4
C5 (11500K)	11500K	User Mode 5

**Colour Preset Mode:** In this mode, C1 to C5 are five memory areas where the factory-preset colour settings are stored. These settings are fixed and can not be modified.

**Colour User Mode:** Press **◀** or **▶** to locate the colour mode and **Enter** to choose a colour. Press **◀** or **▶** again to make the adjustment. If you want to reset to preset modes, please locate **▶◀** to recall the preset colour settings



## 4. **Recall geometry preset setting**

Locate and press **Enter** to recall the preset settings. The word "Recall" will keep blinking on the screen in the process of recall. This page is also a "status display" that shows current horizontal and vertical frequencies. Please note that the resolution data is only displayed if you are using a graphics signal that corresponds with one of the monitor's presets.



## 5. **Manual degaussing function**

To eliminate colour shading or impurity induced by magnetism, press **Adjust** to do the manual degaussing.



## 6. **etc**

### **Miscellaneous**



**Hor. Convergence:** adjusts Horizontal Convergence.



**Ver. Convergence:** adjusts Vertical Convergence.



**Hor. Moire:** adjusts horizontal Moire.

If the picture is unstable when you adjust the moire reduction setting, over-adjustment has occurred. Please lower the moire reduction setting level.



**Purity:** Colour Purity adjustment.



**D-Sub** **BNC:** input connector select.



**OSD position:** adjusts OSD horizontal and vertical position.



**Language:**

**De** : Deutsch

**En** : English

**Es** : Español

**Fr** : Français

**It** : Italiano

**Note:**

- ☞ The setting of each parameter is represented by a numeric value and corresponding scale.
- ☞ The on-screen menu will automatically disappear after 20-seconds of inactivity. If changes have been made, the monitor will automatically save them.

## **Timing Setting**

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By making adjustments of your video card settings, you can set the timing and the refresh rate to your preferences. The monitor will automatically save the settings. Your monitor can accept horizontal frequencies ranging from 30 KHz to 107 KHz and vertical frequencies from 50 Hz to 160 Hz. However, due to different resolution requirements, and to avoid possible damage to your monitor, do not exceed the following vertical refresh rates :

<b>Resolution</b>	<b>Maximum Vertical Refresh Rate (Hz)</b>
800 x 600	160
1024 x 768	130
1280 x 1024	100
1600 x 1200	85

## Factory Preset Timings

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Mode	Resolution	Vertical Frequency (Hz)	Horizontal Frequency (KHz)
Industry	640 x 400	70	31.47
Industry	640 x 480	60	31.47
VESA	800 x 600	75	46.88
VESA	800 x 600	85	53.67
VESA	1024 x 768	75	60.02
MAC	1024 x 768	75	60.24
VESA	1024 x 768	85	68.68
VESA	1280 x 1024	75	79.98
VESA	1280 x 1024	85	91.15
VESA	1600 x 1200	75	93.75

# **Troubleshooting and Useful Hints**

# 4

## **Troubleshooting**

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Make sure that your monitor is properly installed if you encounter any trouble using this product (For hardware installation, see **Chapter 2, Getting Started**). If the problems persist, check this chapter for possible solutions.

- ✓ There is no picture on the screen.

Check:

- Video sync signal. The video sync signal from the graphics card must be as specified for the monitor.
- Power saving mode. Press any key and move the mouse to deactivate the mode.
- Signal cable connector pins. If there are bent or missing pins, consult your place of purchase.

- ✓ The picture is scrolling or unstable.

Check:

- Signal cable connectors and pins. Replace the signal cable if it is damaged.
- Graphics card. See if the settings are correct and within the monitor's specifications.
- Scanning frequencies. Change the settings of your graphics card to values within the monitor's range .
- Remove any magnetic objects that are near the monitor. These include speakers and power supplies ( AC Adaptors ).

- ✓ Characters look dark; the picture is too small or too large, not centered, etc.

- Adjust related settings. See Chapter 3, Adjusting the Monitor.

- ✓ Colours are impure.
  - Check the signal cable and connector pins. If there are bent or missing pins, consult your place of purchase.
  - Adjust related settings. See Chapter 3, Adjusting the Monitor.
  - Move any sources of magnetic fields away from the monitor. These include speakers and power supplies.
  
- ✓ There are two horizontal damper lines visible on the screen.
  - These lines are damper lines required by the aperture grille technology. They usually blend into background and are not noticeable. They are to maintain the aperture grille's alignment and prevent vibration or distortion of the screen image. On a lightly-coloured screen, they may be visible and cast a slight shadow on the screen.
  
- ✓ Faint black vertical lines are visible on the screen:
  - The aperture grille may be mis-aligned. Shock or vibration during transport may, in some cases, cause the aperture grille to move out of alignment. The problem will appear as one or more faint black lines down the screen. If this problem occurs, it may be solved by either degaussing the screen or by lightly tapping the front and sides of the monitor. Allow the monitor to warm up for 30 minutes before doing this.

However, if neither of the above methods work, attempt the following:

- a.) Display a black field over the unaffected areas and a bright white field over the area where the black line(s) appear. Do so by opening a bright-white window on top of a black desktop or wallpaper background. Position the window so that it just covers the area of the lines.
- b.) Set brightness and contrast to their maximum values. Keep the display **on** until the problem is solved. Try tapping (again, do not hit) the side of the display lightly to expedite realignment. The white field will heat up the mis-aligned area of the grille, returning it to proper alignment. Be sure to return the brightness and contrast to normal levels after this procedure.

## **Need More Help?**

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If your problems remain after checking this manual, please contact your place of purchase or contact:

### **Australia**

Visit the Mitsubishi Electric Australia web site at

[www.mitsubishi-electric.com.au](http://www.mitsubishi-electric.com.au)

Or contact the Service Department for your state:

New South Wales and Australian Capital Territory  
348 Victoria Road  
Rydalmere, 2116  
Tel: (02)9684-7669  
Fax: (02)9684-7684

Victoria and Tasmania  
4 / 303 Burwood Hwy  
East Burwood, 3151  
Tel: (03)9262-9899  
Fax: (03)9262-9850

Queensland  
1 / 104 Newmarket Road  
Windsor, 4030  
Tel: (07)3357-8877  
Fax: (07)3357-8488

Western Australia  
5 / 329 Collier Road  
Bassendean, 6054  
Tel: (08)9377-3411  
Fax: (08)9377-3499

South Australia and Northern Territory  
77 Port Road  
Hindmarsh, 5007  
Tel: (08)8340-0444  
Fax: (08)8340-0555

### **New Zealand**

Contact Melco New Zealand Ltd.  
1 Parliament St.  
Lower Hutt

Tel: (04)560-9100  
Fax: (04)560-9140  
Web site: [www.melco.co.nz](http://www.melco.co.nz)

# **Specifications**

# **5**

## **Picture Tube**

Size	19" (48.3cm) diagonal
Type	Natural Flat Tube
AG pitch	0.25mm aperture grille pitch (at center) 0.27mm aperture grille pitch (at edges)
Surface coating	AR film (AR, AS) coating

**Maximum Viewable Size** 18" (45.7cm) diagonal

## **Power Supply (Universal)**

Input voltage	100~240 V AC, 50~60 Hz (Universal)
Power consumption(Max.)	150W

**Max. Resolution** 1600 x 1200

**Horizontal Frequency** 30-107 KHz

**Vertical Frequency** 50-160 Hz

**Video Bandwidth** 230 MHz

**Video Input** mini D-sub connector / 5 BNC connectors

**Adjustable Timing** 10 factory presets, 22 user modes

**User's Control** Intelligent On-Screen-Display(OSD)

**Regulatory Compliance** UL, CSA, C-Tick, TCO'99

**Plug & Play** DDC1/2B

**Ambient Temperature**

Operating +5°C ~ +40°C / +41°F ~ +104°F

Storage -20°C ~ +60°C / -4°F ~ +140°F

**Humidity**

Operating 20% ~ 90%

Storage 10% ~ 90%

**Dimensions (W x H x D)** 474 mm (W) x 485 mm (H) x 483 mm (D)

**Weight (net)** 28 Kg